

### Abstract of the Disclosure

There are provided a method and apparatus for fixed codebook search with low complexity used in a sound codec according to the Code Excited Linear Prediction (CELP) coding algorithm. The method includes: calculating absolute values of pulse position likelihood estimation vectors for respective pulse positions for each track in a plurality of tracks; selecting a predetermined number of the pulse position for each track in a descending order of the absolute values of the pulse position likelihood estimation vectors; selecting one pulse position among the selected pulse positions for each track, per each track, creating all possible pulse position combinations consisting of the selected pulse positions, and conducting complete search for the all possible pulse position combinations; and selecting one pulse position combination among the all possible pulse position combinations subjected to the complete search. Therefore, it is possible to significantly reduce the calculation amount required for fixed codebook search of a sound codec.